

GOKUN, V.B.; DOBROSLAVSKIY, L.I., inzh., retsenzent; ~~BEYYE, Yu.V.~~,
inzh., red.; KUNIN, P.A., inzh., red.izd-va; TIKHAI'OV,
A.Ya., tekhn. red.

[Technological fundamentals of machinery design; essence,
trends and methods for realization] Tekhnologicheskie os-
novy konstruirovaniia mashin; sushchnost', napravlenie i
metody osushchestvleniia. Izd.3., perer. i dop. Moskva,
Mashgiz, 1963. 735 p. (MIRA 17:1)

BEREZIN, Boris Prokop'yevich; MOSYAK, Aron Abramovich; NIKIFOROV, Vikentiy Markianovich; POGODIN-ALEKSEYEV, Georgiy Ivanovich, prof., doktor tekhn.nauk; TITOV, Nikolay Dmitriyevich; SHPITAL'NIY, Boris Gavrilovich; SHCHERBINA, Nikolay Aksept'yevich; KOKOSHKO, A.G., red.; BEYZEL'MAN, D.R., red.; NAUMOV, K.M., tekhn.red.

[Technology of the most important industrial branches] Tekhnologiya vazhneishikh otraslei promyshlennosti. Pod red. G.I.Pogodina-Alekseeva. Moskva, Izd-vo VPSH i AON pri TsK KPSS. Part 2. [Machinery industry; manual for higher party schools] Mashinostroenie; uchebnoe posobie dlia vysshikh partiinykh shkol. 1959. 376 p. (MIRA 12:11)
(Machinery industry)

BEYZEL'MAN, Rafail Davidovich

RELEASED

1964

c. '63

Metal Cutting
Bearings

BEYZER, F.

Clearing-House

Wider expansion of branch work of the clearing house system, Den. i kred., 11, No 4, 1952.

Monthly List of Russian Accessions, Library of Congress July 1952 UNCLASSIFIED

TSVETAYEV, N.; REYZER, P.

Tie between the bank and regional economic council. Den. 1 kred.
15 no.12:35-36 D '57. (MIRA 11:2)
(Moldavia--Finance)

TSVETAYEV, N.; BEYZER, P.; YAKERSON, B., kreditnyy inspektor; KROL', V.

Effectiveness of State Bank credit in financing the mechanization of
production. Den. 1 kred. 17 no.8:54-59 Ag '59. (MIRA 12:11)

1. Nachal'nik proizvodstvenno-ekspluatatsionnogo otdela Moldavskoy
respublikanskoy kontory Gosbanka (for TSvetayev). 2. Nachal'nik
otdela kreditovaniya predpriyatiy sovnaarkhoza Moldavskoy SSR (for
Beyzer). 3. Starshiy inzh.-ekonomist Iyumskogo parovozoremontnogo
zavoda (for Krol').

(Moldavia--Machinery in industry--Finance)

TSVETAYEV, N.; BEYZER, P.; KARTELISHEV, V.

For a wider dissemination of efficient practice in paying for goods and services. Den. i kred. 9 no.11:65-69 N '61. (MIRA 14:12)

1. Nachal'nik proizvodstvenno-ekspluatatsionnogo otdela Moldavskoy kontory Gosbanka (for TSvetayev).
 2. Nachal'nik otdela kreditovaniya predpriyatiy sovnarkhoza Moldavskoy kontory Gosbanka (for Beyzer).
 3. Nachal'nik uchetno-finansovogo otdela energoupravleniya Moldavskogo sovnarkhoza (for Kartelishev).
- (Moldavia--Payment)

BEYZER, P.

Organization of films and their relations with the State Bank.
Den. i kred. 21 no. 2:57-59 F '63. (MIRA 16:2)

1. Nachal'nik otдела kreditovaniya promyshlennosti soвета
narodnogo khozyaystva Moldavskoy respublikanskoy kontory
Gosbanka. (Moldavia--Banks and banking)
(Moldavia--Industrial organization)

PAPUSHIN, L.L., inzh.; BEYZER, V.N., inzh.

Results of modernizing a jig. Ugol'. prom. no.6:59-60 N-D '62.

(MIRA 16:2)

1. Dometskiy sovet narodnogo khozyaystva (for Papushin). 2. Yasinovskiy
koksokhimzavod (for Beyser).

(Jigs and fixtures)

DUBINSKIY, Yu.M.; BEYZER, V.N.; GARMATA, V.V.

Modernization of jigging machines. Koks i khim. no.2:10-13 '63.
(MIRA 16:2)

1. Yasinovskiy koksokhimicheskiy zavod.
(Coal preparation plants—Equipment and supplies)

LITMANOVICH, I.M.; PAPUSHIN, L.L.; BEYZER, V.N.; BATURA, N.I.

Comparative testing of dewatering centrifuges. Koks i khim. no.3:11-14
'63. (MIRA 16:3)

1. Yasinovskiy koksokhimicheskiy zavod.
(Donets Basin—Coal preparation) (Centrifuges—Testing)

PAPUSHIN, L.L.; BEYZER, V.N.; MILYUTIN, O.M.

Investigating rock disintegration by soggiess. Koks i khim. no.11:
12-14 '63. (MIRA 16:12)

1. Yasinovskiy koksokhimicheskiy zavod.

BEYZER, V.N.; ANDREYEV, M.A.; BOCHAROV, N.G.

Sources and value of slurry formation in coal preparation plants.
Koks i khim. no.3:14-15 '64. (MIRA 17:4)

1. Yasinovskiy koksokhimicheskiy zavod.

MUSKAT, Leonid Veniaminovich; BEYZERMAN, A.N., nauchnyy red.; RYCHEK, T.I., red.; DORODNOVA, L.A., tekhn. red.

[Manual on materials for sanitation and ventilation mechanics and tinsmiths] Materialovedenie dlia slesarei-santekhnikov i slesarei-ventiliatsionnikov-zhestianshchikov. Moskva, Prof-tekhizdat, 1962. 187 p. (MIRA 15:9)

(Sanitary engineering equipment and supplies)

(Ventilation--Equipment and supplies)

PHASE I BOOK EXPLOITATION

SOV/4486

Beyzerman, D.Z., Engineer, I.M. Dzhloyev, Engineer, I.A. Gezentsvey, Engineer,
and L. Ye. Purygin, Engineer

Stroitel'stvo domennoy pechi ob'yemom 1,719 m³ (Building of a Blast Furnace of
a 1,719 m³ Volume) Moscow, Gosstroyizdat, 1960. 140 p. Errata slip inserted.
2,500 copies printed.

Scientific Ed.: N.K. Leonidov, Engineer; Ed. of Publishing House: Z.I. Vdovenko;
Tech. Ed.: P. Ye. Ryazanov.

PURPOSE: This book is intended for the personnel of construction organizations.
It may also be useful for designers and for students of civil engineering
schools of higher education.

COVERAGE: The authors present results of experience gained in building a blast
furnace having a 1,719 m³ volume at a metallurgical plant in the Ukrainskaya
SSR. Included are discussions of the basic design proposals for the construction
of the furnace, industrial methods used for the completion of different types of

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Building of a Blast Furnace (Cont.)

SOV/4486

work and of the whole project, possibilities of reducing the time required for the completion of building and prospects for reducing labor consumption and costs. No personalities are mentioned. There are 9 references, all Soviet.

TABLE OF CONTENTS:

PART I. THE BLAST FURNACE PLANT AND CONSTRUCTION CONDITIONS

Ch. I. Arrangement of the Plant and Description of Its Units	3
Ch. II. Conditions for Construction of the Plant	7

PART II. ORGANIZATION OF THE CONSTRUCTION OF THE PLANT

Ch. I. Preparation of the Construction Organization Plan	10
Ch. II. Measures Taken to Ensure [the Timely] Blowing-In of the Blast Furnace	11
1. Preparatory work	12
2. Completion of general construction work	16
3. Distribution of building and erection work among contractors	19
4. Supply of material and equipment	22

Card 2/4

BEYZERMAN, L.Z.

Rapid photolorimetric determination of iron in nickel-base alloys. Zav. lab. 30 no.11:1331 '64 (MIRA 18:1)

1. Chelyabinskiy metallurgicheskiy zavod.

MEL'NIK, V.I.; BEYZERMAN, R.M.

Use of automatic welding in the assembly of elements of blast
furnaces. Prom. stroi. 40 no.7:32-35 '62. (MIRA 15:7)
(Blast furnaces--Welding)

LYADUKHIN, I.A.; NIKOLAYEV, A.F.; TARASOV, S.M.; DEVIATKOV, A.N.; VARKHOTOV,
K.P.; ZLOTNIK, M.I.; YEVDOKIMOV, V.I.; LYSYAKOV, A.G.; GERSHTEYN,
A.K.; KISS, N.L.; MEL'NIK, V.I.; BEYZERMAN, R.M.; SMIRNOV, I.M.;
NIKUL'SHIN, K.Ye.

From the pages of Soviet magazines. Mekh. stroi. 19 no.9:31
S '62. (MIRA 15:9)

(Bibliography--Construction equipment)

Beyzerman, S. G.

USSR/ Electronics - Instruments

Card 1/1 Pub. 133 - 2/23

Authors : Vladimirov, A. S., Candidate of Technical Sciences; and Beyzerman, S. G.,
Engineer Junior Scientific Worker of the Research Institute of the Min-
Title : istry of Communications
Oscillographic modulation meter

Periodical : Vest. syzazi 11, 3 - 6, Nov 1954

Abstract : Instruments controlling the modulation of radio transmitters are dis-
cussed, and an oscillographic modulation meter is described. This type
of instrument is used for determining the modulation factor and its bal-
ance. Block and circuit diagrams are presented showing the circuit stages
and the layout of the following component parts: R - F detector, A - F
filters, resistances, phase-inverter, and the amplifier stage connected
with a cathode-ray tube, where the modulated signals are traced. Detailed
instructions are given for operating the modulation meter, and its tech-
nical characteristics relating to its high-quality performance are enum-
erated. Diagrams.

Institution:

Submitted:

BEYZEROV, M., inzh.

Control system for a 225 mw. steam turbine equipped with a
controllable double extraction. Energokhoz.za rub. no.6:17-
21 N-D '58. (MIRA 12:4)
(Linden, New Jersey--Turbogenerators)

SHTERN, Leybshi Yankelovich; BEYZEROV, Semen Moiseyevich; PLAVNIK,
Valentin Gilyar'yevich; INDENBAUM, V.S., red.; GOLYATKINA,
A.G., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

[Regulation and automation of air-blower and compressor plants]
Regulirovanie i avtomatizatsiia vozdukhoduvnykh i kompressor-
nykh stantsii. Pod obshchei red. L.IA.Shterna. Moskva, Metal-
lurgizdat, 1963. 378 p. (MIRA 16:8)
(Compressors) (Blowers) (Automatic control)

SHTERN, L.Ya., inzh.; BEYZEROV, S.M., inzh.

Improvement of the control systems of the turbocompressors of
cupola furnaces. Prom. energ. 19 no.3:26-32 Mr '64.
(MIRA 17:4)

AUTHORS: Khrizman, I.A., Bon'tech, V.E., Beyzerov, Ye.M. 32-24-6-12/44

TITLE: On the Methods of Determining Acid-, Ester- and Iodine Numbers in Lignite-Like Bitumen Substances (O metodakh opredeleniya kislotnogo efirnogo i iodnogo chisel v burougol'nykh bitumnykh veshchestvakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 692-694 (USSR)

ABSTRACT: Two different methods of determining the content of unsaturated compounds in fats, oils, and mineral oil products are described in publications, viz., the methods developed by Gyubl' and Margoshes respectively. Whenever the latter method was applied to bituminous substances, the results obtained were mostly not as good as those obtained by the other method, which is explained by the incomplete dissolution of the unsaturated lignite-like bituminous substances in alcohol. The difference between the results obtained by the two methods is shown in a table. The method of determining the acid number described by G.L.Stadnikov (Ref 1) is analogous to that mentioned in OST-7872-36 and GOST 5985-51 for mineral oils and is based upon a titration of the alcoholic (or alcohol-benzene) solution of the substance with caustic potash,

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On the Methods of Determining Acid-, Ester- and Iodine
Numbers in Lignite-Like Bitumen Substances

32-24-6-12/44

beside phenolphthalein and alkali-blue. In the present paper it is shown that these indicators as well as the application of an alcohol-benzene mixture render titration more difficult, whereas the application of a potentiometric method in accordance with GOST 1784-47 is too complicated. As blue coloring can be better observed in titration, tymolphthalein was investigated as an indicator, for which purpose various weighed portions and different quantities of solvents were used. It was found that 0.5 g of the substance per 50 ml of alcohol are sufficient, and that there is no necessity of using a mixture of solvents. A second series of tests showed, however, that for the purpose of determining acids not more than 2 g of the bitumen substance should be used for 50 ml of alcohol, whereas for the determination of the ester number a weighed portion of from 0.3 to 0.7 g per 50 ml of alcohol must be used. It was found that concentration of the lye causes an increase of the values of ester numbers. Saponification for one hour in boiling water suffices in order to obtain accurate values, and on the strength of these investigations it is recommended that methods of determination be precisely described. Data concerning the technique of analysis for the determination of acid- and ester numbers are given. In this connection the editor says

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On the Methods of Determining Acid, Ester, and Iodine
Numbers in Lignite-Like Bitumen Substances

32-24-6-12/44

that experiments are intended to be carried out for the purpose of testing the method developed by Kaufman, which is used for the determination of unsaturated hydrocarbons in gasoline used for aircraft according to GOST 2070-51 for the analysis of bituminous substances. There are 3 tables, and 2 references, 2 of which are Soviet.

ASSOCIATION: Tsentral'naya laboratoriya Yuzhnoural'skogo geologicheskogo upravleniya i Ufimskiy aviatsionnyy institut (Central Laboratory of the South Ural Geological Administration, and Ufa Institute of Aviation)

1. Acids--Determination 2. Esters--Determination 3. Iodine
--Determination 4. Bituminous materials--Analysis 5. Titration

Card 3/3

BEYZEROV, Ye.M.

Conference of the analytical chemists of Bashkiria. Zhur. VKHO
5 no.1:103 '60. (MIRA 14:4)
(Ufa—Chemistry, Analytical—Congresses)

IVANOV, V.M.; BEYZGALOV, V.Ye.; BULYCHEV, A.G.

Strangulation of a subcecal internal hernia. Vest. khir. 93 no.9:
114-115 S '64. (MIRA 18:4)

1. Iz khirurgicheskogo otdeleniya (zav. otdeleniyem - V.Ye.Bryzgalov,
glavnyy vrach - M.A.Tver'ye) meditsinskoy sanitarnoy chasti No.9
Permi.

ACCESSION NR: AP4025004

S/0070/64/009/002/0308/0310

AUTHORS: Bayziter, L. K.; Vitol, I. K.

TITLE: Growing thin monocrystalline layers of semiconductors on a nonmonocrystalline base

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 308-310

TOPIC TAGS: semiconductor, semiconductor crystal, crystal growth, monocrystal semiconductor layer, germanium base, tantalum base, glass base, quartz base, steel base, vacuum precipitation, Pierce electron gun, electron gun, crystallization angle effect

ABSTRACT: Very little information exists concerning the process of growing monocrystalline layers on polycrystalline or amorphous bases. It is known, however, that such processes are affected by two mutually opposite factors: the orienting tendency of a growing crystal and the disorienting influence of the base. The experiments described here were performed in order to study the possibility of decreasing the disorienting effect of the base by choosing proper thermal conditions. These experiments involved the vacuum precipitation of thin Ge layers

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ACCESSION NR: AP4025004

on tungsten, glass, quartz, tantalum and steel bases. The necessary temperature gradient was established with the J. R. Pierce linear electron gun generating an electron beam 1 mm wide. Data obtained showed that tungsten is the most suitable material for a base-plate because its affinity for Ge is weak and its thermal expansion coefficient is close to that of Ge. Maximum layer thickness (5 mm) was obtained when the base was heated on the underside. With the electron beam directed toward the growing layer, the maximum crystal height was only 0.3 mm. The success of the underside heating is attributed to the fact that under this condition the crystallization angle is positive and its value is at a maximum. "The authors express their appreciation to N. N. Sheftal' for the discussion of the results obtained, and to A. I. Vovsi and V. Ya. Krumin' for their help in the experimental part of this work." Orig. art. has: 2 figures.

ASSOCIATION: Latviyskiy gosudarstvennyy universitet im. P. Stuchki (Latvian State University)

SUBMITTED: 27May63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ML, PH

NO REF SOV: 004

OTHER: 005

Card 2/2

L 14618-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b) LJP(c) JD/GG
ACC NR: AT6002267 (N) SOURCE CODE: UR/2564/65/006/000/0319/0324

AUTHOR: Vitol, I. K.; Beyziter, L. K.

ORG: none

21, 4/1, 5
TITLE: Conditions of formation of single-crystal thin films on a non-single-crystal substrate [Paper presented at the Third Conference on Crystal Growing held in Moscow from 18 to 25 November, 1963]

SOURCE: AN SSSR. Institut kristallografi. Rost kristallov, v. 6, 1965, 319-324

TOPIC TAGS: single crystal growing, germanium single crystal, crystallization

ABSTRACT: ^{55, 51}Germanium films from 4 to 12 μ thick, obtained by evaporation onto various substrates (glass, quartz, Ta, W, Pt, steel, etc.), were used for zone crystallization. The thermal conditions of two-dimensional zone melting were theoretically calculated. It was found that two-dimensional zone melting with an electron beam can be used to obtain thin single-crystal films of germanium on non-single-crystal substrates. The maximum size of the single-crystal region obtained was 7 mm, but this is not the limit. Best experimental results were obtained on the side of the substrate opposed to that which was heated. This

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ACC NR: AT6002267

4
confirms the hypothesis that the disorienting influence of the substrate on the growth of a thin single-crystal film can be minimized or eliminated by selecting a suitable thermal regime under which the crystallization angle $\phi_{cr} > 0$. The experimental germanium films obtained on the tungsten substrate are preferentially oriented in the [111] and [100] directions relative to the plane of the substrate. Authors are deeply grateful to N. N. Sheftal' for discussing the results of the study, to A. P. Liyep for performing the numerical calculations, and to A. I. Vovsi and V. Ya. Krumin' for assistance in the experimental work. Orig. art. has: 4 figures and 6 formulas.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 009

13
Card 2/2

BEYZMAN, B.B., red.

[Proceedings of a conference devoted to the 40th anniversary of the Great October Socialist Revolution] Nauchnye trudy konferentsii, posviashchennoi 40-letiiu Velikoi Oktiabr'skoi sotsialisticheskoi revoliutsii. Moskva, Medgiz, 1959. 235 p.
(MIRA 13:9)

1.Moscow. Gorodskaya klinicheskaya bol'nitsa no.18 imeni Oktiabr'skoy revolyutsii.

(MEDICINE)

L 2443-66 EWT(d)/EWP(h)/EWP(1)

ACCESSION NR: AP5020030

UR/0100/65/000/008/0023/0023
629.1--43

AUTHORS: Loshak, I. A. (Engineer); Beyzym, Ya. T. (Engineer)

TITLE: Tri-axle tractor with trailer of high cross country mobility

SOURCE: Mekhanizatsiya stroitel'stva, no. 8, 1965, 23

TOPIC TAGS: ⁴transportation, ⁴construction machinery, tractor / MAZ 529B tractor, 2PP 25 semitrailer, YaAZ M206A engine

ABSTRACT: The Konstruktorsko-tekhnologicheskoye byuro (Construction Technology Bureau) of the Rostov Directorate of Construction, Glavsevkavstroy, completed the development and construction of a 25-ton vehicle designed for off-the-road use. The vehicle consists of the single-axle tractor MAZ-529B and the dual-axle semitrailer 2PP-25 of the Saratov Assembly Factory. The tractor-trailer combination is intended for use in transporting heavy construction equipment. The tractor is powered by the two-stroke, six-cylinder, 180 hp engine YaAZ-M206A. The tractor features a linking device of the fork type and can turn through an angle of 20° to either side of the trailer center line. The trailer has dual transversely balanced axles and a suspension system allowing axle motion in a vertical plane

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about the horizontal axis. The trailer also features a pneumatic braking system as well as a parking brake on all four sets of rear wheels. A special welded and bolted collar is used to join the trailer to the tractor; a supplementary chain linkage is provided so that the semitrailer may be used with ordinary dual axled tractors. A list of additional characteristics (dimensions, capacity, speed, tire sizes, operating characteristics, etc) of the combination is given. Tests of the vehicle indicate high mobility, reliability, maneuverability, and ease of control. Orig. art. has: 2 photographs.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: GO

NO REF SOV: 000

OTHER: 000

BVK

Card 2/2

BEZ', Denis Fedorovich; KRAVCHENKO, Z.I., red.; BALLOD, A.I., tekhn.red.

[Accounting on collective farms; practical exercises] Bukhgal-
terskii uchet v kolkhosakh; prakticheskie zaniatiia. Moskva,
Gos.izd-vo sel'khoz.lit-ry, 1959. (MIRA 13:6)
(Collective farms--Accounting)

BEZA, J.

"Shining Eyes in the Fields." p. 6. (CESKOSLOVENSKE STATNI STATKY, Vol. 3, no. 16, Apr. 1951, Praha, Czechoslovakia)

So: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

BEZA, Roman; PASTUSZEWSKA, Barbara

Compared results of the nutritional protein value (PER and NPU) determined on pair-fed and ad libitum fed rats. Zesz probl post nauk roln no.54:61-64.

1. Institute of Animal Physiology and Feeding in Jablonna, of the Polish Academy of Sciences.

H. BEZACINSKY

"Problems connected with the occurrence of Agaricus and bark beetles in the Presov area." p. 31. (POLNA, Vol. 9, no. 2, Feb. 1953, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

BEZACINSKY, H.

Bezacinsky, H. Manual of a specialist in soil improvement through forestry methods. Tr. from the Russian, p. 53. LES. Bratislava. Vol. 1, no. 3, Mar. 1954.

SO: Monthly List of the E st European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl. "

BEJACINSKY, H.

Dusan Randuska's Phenological Research in Forestry; a book review. p. 89 (Jesnický
Časopis Vol. 2, no. 1, 1956 Bratislava)

SO: Monthly List of East European Accession (EEAL) 13, Vol. 6, no. 7, July 1957. Uncl.

BEZACINSKY, Hubert

Lesne melioracie. (Forestry Ameliorations. a university textbook.
illus., bibl., tables) Bratislava, SPN, 1957. 233 p.

Bibliograficky katalog, CSR, Slovenske Knihy. Vol. VIII. 1957. NO.9. p.281.

BEZACINSKY, H.

"Fir problems in Slovakia"

Lesnický časopis. Bratislava, Czechoslovakia. Vol. 5, no. 2, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

BEZACINSKY, H.

The Forest Month. p. 97.

Polana. Pverenictvo lesov a drevarskeho priemyslu. LES
Vol. 15, no. 4, Apr. 1959. Polana, Czechoslovakia

Monthly list of East European Accessions (EEAI) LC Vol. 9. no. 2
Feb. 1960. Uncl.

BEZAK, Vladimir Iosifovich, kand. farmatsevticheskikh nauk, ...;
SHAVTSOV, S.I., red.

[Medical instrumentarium and apparatus.] Meditsinskii
instrumentarii i apparatura. Moskva, meditsina, 1965.
217 p. (MIRA 1814)

CHKHEIDZE, R.; BEZARASHVILI, L.

Some indices of the coagulating blood system following the
injection of contrasting substance in phlebography. Soob.
AN Gruz. SSR 38 no.2:457-464 My '65. (MIRA 18:9)

MACHABELI, M.S.; DZHAPARIDZE, T.N.; BOKERIYA, R.I.; LABAKHUA, G.Sh.;
BEZARASHVILI, L.G. ; KIKNAVELIDZE, N.D.

Indices of the blood coagulation system in healthy dogs. Soob.
AN Gruz. SSR 30 no.5:663-666 My '63. (MIRA 16:11)

1. Institut eksperimental'noy i klinicheskoy khirurgii i gematologii AN GruzSSR, Tbilisi. Predstavleno akademikom K.D.Eristavi.

MACHABELI, M.S.; BEMBRASHVILI, L.G.

Toluidine blue, an inhibitor of heparin, and prospects for its use in artificial blood circulation. Study Incl. exp. i klin. khir. i gemat. AN Cruz. SGR 11:75-79 '63. (1484 17:8)

MIKELADZE, G.Sh.; NADIRADZE, Ye.M.; BEZARASHVILI, Sh.M.; DGEBUADZE, G.A.;
TSKHVEDIANI, R.N.; CHIKASHUA, D.S.; METREVELI, A.I.

Making ferrosilicon in a closed electric furnace. Stal' 21 no.5:
419-422 My '61. (MIRA 14:5)

1. Institut metallurgii AN GSSR i Zestafonskiy zavod ferrosplavov.
(Ferrosilicon--Electrometallurgy)

ACCESSION NR: AP4045204

S/0251/64/035/002/0379/0386

AUTHOR: Gvelesiani, G.G., Bezarskhvili, Sh. M., Mgaloblishvili, N.P.

TITLE: Aluminothermal reduction of europium oxide

SOURCE: AN GruzSSR. Soobshcheniya, v. 35, no. 2, 1964, 379-386

TOPIC TAGS: europium, europium oxide, europium oxide reduction, aluminothermal reduction, europium refining

ABSTRACT: This work is a continuation of earlier studies by the authors on aluminothermal reduction. The most promising method of obtaining pure europium is by the vacuum metallothermal reduction of the oxide. In the case of the reduction of Eu_2O_3 by aluminum, the equilibrium condition is determined solely by the europium vapor pressure since that of aluminum is negligible. This pressure was measured in high-temperature vacuum equipment for the high-temperature form of the oxide and an empirical equation was derived for the pressure and thermodynamic potential of the reaction. The kinetics of the reaction were studied for high- and low- temperature forms of the oxide, gas being evolved more rapidly from the former than from the latter, especially at 1100C. Graphs show europium output under various conditions of temperature for the aluminothermal

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ACCESSION NR: AP4045204

reduction process and Ginstling's equation is used to represent the results for the kinetic indices. The mechanism of the reduction process is discussed in terms of wetting, activation centers, crystal structure and grain size. Unlike the case of ytterbium, no intermediate aluminate is formed, and the metal obtained at 1150C contained 0.31% aluminum. "The authors thank Prof. V.A. Pazukhin for his attention and interest." Orig. art. has: 8 figures and 6 equations.

ASSOCIATION: Institut metallurgii, Akademiya nauk gruzinskoy SSR, Tiflis
(Metallurgical Institute, Georgian SSR Academy of Sciences)

SUBMITTED: 02Jul64

ENCL: 00

SUB CODE: MM

NO REF SOV: 006

OTHER: 002

Card 2/2

MACZABELI, Maria Semenowna; BEZARASZWILI, Lamara Georgiewna

Toluidine blue as a heparin-inhibitor in vitro and possibilities of its use in hyperheparinemia caused by artificial extracorporeal circulation. Pol. tyg. lek. 17 no.38:1480-1484 17 S '62.

1. Z Instytutu Doswiadczalnej i Klinicznej Chirurgii oraz Hematologii w Tbilisi — Gruzja (ZSRR); dyrektor: prof. dr K.D. Eristawi, Członek rzeczywisty Akademii Nauk Gruzinskiej SSR.

(HEPARIN) (PHENOTHIAZINES) (DYES) (HEART MECHANICAL)

L 33328-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EWP(b) Pr-4/Ps-4/Pu-4
IJP(c) JL/mj/27

ACCESSION NR: AP5005561

S/0251/65/037/001/0121/0126

AUTHORS: Gvelesiani, G. G.; Bezarashvili, Sh. M.; Nadiradze, A. A. 38
37
B

TITLE: Zirconothermic reduction of europium pentoxide 27 27

SOURCE: AN GruzSSR. Soobshcheniya, v. 37, no. 1, 1965, 121-126

TOPIC TAGS: thermal dissociation, europium compound, zirconium, reduction 27 18

ABSTRACT: Results from an experimental study of zirconothermic reduction of Eu_2O_3 under vacuum are presented. Apparatus described by G. G. Gvelesiani, N. P. Mgaloblishvili, and A. A. Nadiradze (Vysokotemperaturnyye ustanovki dlya issledovaniya vakuumtermicheskikh vosstanovleniy. Trudy Gruzinskogo instituta metallurgii, v. XIV, 1965) was used. Experiments were conducted on briquettes weighing 1.5-2 g and made of mixed powders of G, Eu_2O_3 , and Zr. The yield of Zr increased at 1000-1300C (with the increase of the molar ratio of $\text{Zr}/\text{Eu}_2\text{O}_3$ to 3.75), and then remained constant. The reaction was explosive at the start and slowed down after a few minutes. Raising the temperature increased the rate of reaction at its early stages (see Fig. 1 on the Enclosure). Experimental data were processed mathematically by the method of P. P. Budnikov and A. M. Ginstling

Cerd 1/3

L 33323-65

ACCESSION NR: AP5005561

(Reaktsii v smesnyakh tverdykh veshchestv, Gosstroyizdat, M., 1961) and are presented graphically. It was found that increasing the pressure during the formation of briquettes decreased the yield of Eu and the rate of reaction, while reducing the particle size of Zr from $1+0.5$ to $0.25+0.1$ mm had the opposite effect. Lowering the particle size of Eu_2O_3 from 2 to 0.05 mm increased the percent yield of Eu from 13 to 85. The reaction was found to involve the solid phases of the ingredients without forming any intermediate products. The optimal pressure was 10^{-2} mm Hg. The process is inhibited by vaporization of Eu and by diffusional retardation. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Gruzinskiy institut metallurgii, Tbilisi (Georgian Institute of Metallurgy)

SUBMITTED: 26Oct64

ENCL: 01

SUB CODE: CC

NO REF SOV: 003

OTHER: 000

Cord 2/2

L 33328-65

ACCESSION NR: AP5005561

ENCLOSURE: 01

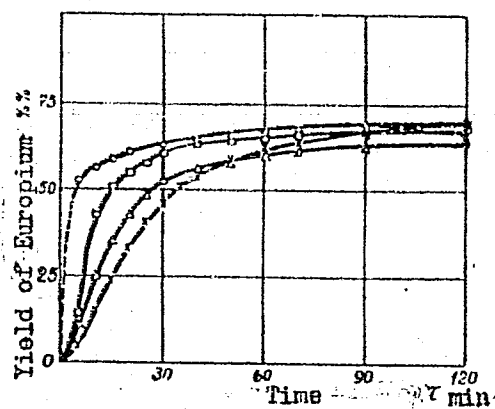


Fig. 1. The influence of temperature and time on the yield of europium: x- 1000°C; Δ- 1050°C; □- 1100°C; ○- 1200°C

Card 3/3

18(5.7)

AUTHOR:

Bezbakh, D.K., Engineer

SOV/125- 59-5-10/16

TITLE:

Rate Setting for the Welding of Short Welds

PERIODICAL:

Avtomaticheskaya svarka, 1959, Vol 12, Nr 5, (74)
pp 87-90 (USSR)

ABSTRACT:

The author states, that the setting of basic output rates gives the possibility of regulating the wages of the workers. For this purpose it is necessary to perfect the methods of calculating these rates. The author presents the calculations for output rates for welding of short welds. He gives the formula: $T = (T_{sh} - t) L + t$ (Min). T_{sh} is the time of welding m/min, L is the length of weld and $t = \frac{1}{20} T_{sh}$. This formula is meant for welding under the conditions of serial and small serial production, without considering any correcting factors. There are 1 graph, 2 tables and 5 Soviet references.

ASSOCIATION:

Card 1/2

Nikolayevskiy zavod "Dormashina" (Nikolayevsk Plant "Dormashina").

BEZBAKH, D.K. (g. Nikolayev)

Preheating the electrodes to increase the welding productivity.

Avtom.svar. 15. no.4:33-38 Ap '62.

(MIRA 15:3)

(Electric welding)

BEZBAKH, D.K. (Nikolayev)

Determining the coefficient of compaction of powder wire.
Avtom. svar. 16 no.7:41-42 J1 '63. (MIRA 16:8)

(Metal powder products)

BEZBAKH, D.K., inzh.

Peculiarities in the manufacture of powder metal wire. Svar.
proizv. no.8:29-31 Ag '63. (MIRA 17:1)

BEZBAKH, L. G. (1901-1971)

Investigating parameters of the heating and melting of power
metal wire. Avtom. svar. 18 no. 5: 29-31 My '65. (MIRA 18 5

BEZBAKH, D.K., inzh.

Kinetics of gas saturation in some methods of fusion welding.
Sver. proizv. no.10:14-16 0 '65. (MIRA 18:10)

BEZBANTNYY, N.I., inzh.; NOVATSKIY, A.A., inzh.

Mechanization of finishing work. Mekh. stroi. 20 no.10:15-16 0 '63.
(MIRA 16:10)

CHERNOMAN, G.P.; BEGARASHVILI, Sh.M.

Aluminum and sodium thermal reduction of europium oxide.
Sovb. AN Gruz. SSR 39 no.3:669-674 S '65. (MIRA 28:10)

L. Gruzinsky Institut metallurgii. Submitted February 16,
1965.

Bezbarayte, Ya.I.

USSR/ Physical Chemistry - Atom

B-3

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7130

Author : Bezbarayte Ya.I., Kantserovichyus A.I., and Yutsis A.P.

Inst : Not given

Title : Fock's Self-Consistent Field for the Excited Helium Atom

Orig Pub : Optika i spektroskopiya, 1956, Vol 1, No 1, 9-16

Abstract : The equation for the self-consistent field of Fock has been solved for the $1s2s$, $1s2p$, $1s3p$, and $1s4p$ configurations of the He atom. The possibility of simplifying Fock's equation is discussed. Simplified Fock equations have been solved for the $1s5p$, $1s6p$, $1s3d$, $1s4d$, $1s5d$, and $1s6d$ configurations of the He atom. The solutions of these equations are used in the calculation of the total energy. Values are given for the total dipole energy for transitions between the ground-state configuration of He and the excited states as well as the transitions between the excited states.

Card 1/1

- 4 -

15.2141

L2041
S/201/62/000/003/002/002
I001/I201

AUTHORS: Bezborodov, M.A., Mazo, E.E., and Kaminskaya, V.S.

TITLE: Study of some factors affecting adhesion of
enamels to aluminum (A preliminary statement)

PERIODICAL: Izvestiya Akademii Nauk Belarusskoy SSR. Seriya, no.3,
1962, 54-57

TEXT: Thermal expansion, viscosity of the vitreous enamel
in softened state, and wetting of the metal by the enamel were
investigated on 14 specimens of glass of different composition at
600°C and at lower temperatures. Natural sand and technical minium
were used for the preparation of vitreous enamels. Other compo-
nents were C.P. Enamel coating and surface preparation of the metal
were performed as described in authors' previous paper (Bezborodov,

Card 1/2

S/201/62/000/003/002/002
I001/I201

Study of some factors...

M.A. and others, DAN BSSR, no.7, 1959). The results of investigation showed that there is no single factor conditioning the strength of adhesion. Reducing the difference in the thermal expansion between the joining elements weakens the adhesion. Decrease of viscosity in the softened state of the enamel improves the adhesion. In the studied specimens lead oxide had the greatest power on reducing viscosity in softened state of the enamel. Boron anhydride and oxides of alkali metals substituting PbO increase the viscosity. In leadless enamels lithium oxide has the greatest effect on enamel scaling. There are 2 figures and 1 table. ✓

ASSOCIATION: Laboratoriya fizichnay Khimii tekhnologii
silikataw IA Nkh AN BSSR (Laboratory of Physico-
chemical Technology of Silicates in IA NKH As BSSR)

Card 2/2

КОСІЙНКО В.С.; БІЗЬБЕРАШЕНКО Л.І.

Determination of hemoglobin in blood plasma. Lab. doc. no. 8;
479-480 '64. (MIRA 17:12)

1. Laboratoriya eksperimental'noy terapii raka Ukrainakogo
nauchno-issledovatel'skogo instituta eksperimental'noy i
klinicheskoy onkologii (direktor - akademik AN UkrSSR
R.Ye.Kavetskiy), Kiyev.

BEZBORODKO, B.I.

Importance of determining the C-reactive protein combined with other immunobiochemical indices in the diagnosis of latent forms of rheumatic fever. Sov. med. 27 no.12:40-42 D:63 (MIRA 17:4)

1. Iz kafedry vtoroy gospiatal'noy terapii (zav. - prof. V.N. Dzyak) Dnepropetrovskogo meditsinskogo instituta.

BEZBATCHENKO A. L.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1754
 AUTHOR BEZBATCHENKO, A. L., GOLOVIN, I. N., IVANOV, D. P., KIRILLOV, V. D.,
 JAVLINSKIY, N. A.
 TITLE The Investigation of a Gas Discharge with High Amperage in a
 Longitudinal Magnetic Field.
 PERIODICAL Atomnaja Energija, 1, fasc. 5, 26-37 (1956)
 Issued: 1 / 1957

The present work describes the investigations of a gas discharge in deuterium at pressures of from 0,05 to 0,4 mm torr. The stages of the discharge from the growth of the field from zero to the maximum are investigated. Amperage attained 700 kiloampères and the field strength of the longitudinal field was 12000 Ørsted. Investigations were carried out at a field strength of the longitudinal field which was comparable to that of the discharge current. The momentum device used is explained on the basis of a drawing. It consists of a glass or farfor tube of a length of from 65 to 70 cm and with a diameter of from 18 to 20 cm with plane copper electrodes. These tubes are mounted inside a coil of 36 cm diameter. The condenser pile with $C_1 = 23.000$ microfarads on the occasion of its discharge by way of a spherical discharger produces damped electric oscillations with a frequency of 73 c.

Summary and discussion of results: The longitudinal magnetic field delays the compression of the discharge column under the influence of the eigenfield of the current. Breakdown of the discharge column begins later than at $H_0 = 0$. (H_0 - longitudinal field before the discharge). At $H_0 \leq 2000$ Ørsted radial

Atomnaja Energija, 1, fasc.5, 26-37 (1956) CARD 2 / 2

PA - 1754

oscillations of the column are noticed after the first compression. The column then curves and eventually loses its sharp contours. Thus the decay process in the cases of the existence of a longitudinal field differs considerably from breakdown in the case of a lacking exterior longitudinal field. The increase of the field strength of the longitudinal magnetic field in the column of the gas discharge cannot be fully explained by compression of the column alone. Obviously part of the observed effect is due to the anisotropy of the conductivity of the plasma in the magnetic field. Within the error limits of the experiment the discharge occurs in the case of equilibrium being established between the pressures of the longitudinal field and those of the magnetic eigenfield, which points in the direction of a comparatively low temperature of the plasma. It was estimated that the temperature of the plasma does not exceed 15-20 eV. The conductivity of the plasma which was estimated from the capture of magnetic current, attains $4 \cdot 10^{14}$ CGSE after from four to five microseconds. The ionization coefficient of the plasma column, according to an estimate of conductivity, attains the value of 15%.

INSTITUTION:

BEZBATCENKO, A.L.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1977
 AUTHOR BEZBATCENKO, A.L., GOLOVIN, I.N., IVANOV, D.P., KIRILLOV, V.D.
 JAVLINSKIJ, N.A.
 TITLE On the Influence Exercised by a Longitudinal Magnetic Field on a
 Pulse-Like Gas Discharge with High Amperage.
 PERIODICAL Dokl. Akad. Nauk 111, fasc. 2, 319-321 (1956)
 Issued: 1 / 1957

The authors investigated the influence exercised by a longitudinal magnetic field on the stability of a plasma column obtained by the pulse-like passage of a current through deuterium. Gas pressure on the occasion of these experiments amounted to from 0,05 to 0,4 mm torr. Amperage attained 700.000 ampères and the field strength of the longitudinal magnetic field was 12.000 Ørsted. A farfor or glass tube with a radius of 10 cm and an electrode distance of 70 cm served as discharge chamber. The scheme of the experimental system is shown in form of a diagram. On the occasion of these tests the strength of the discharge current, the voltage between the electrodes, the radius of the discharge column, and the average field strength of the longitudinal magnetic field in the plasma were determined simultaneously.

An enclosure shows recording of the discharge column during the first 10 microseconds. In the case of the presence of a longitudinal magnetic field the column contracts during the first 5 to 6 microseconds but remains homogeneous with respect to length. With an increase of field strength up to 6000 Ørsted compression slows down noticeably and a further increase of field strength is

Dokl. Akad. Nauk 111, fasc. 2, 319-321 (1956)

CARD 2 / 2

PA - 1977

only little noticeable. At field strengths of 700 and 2000 Ørsted radial oscillations of the discharge column are noticed. The time of existence of a sharply outlined column is much longer in the case of the existence of a longitudinal magnetic field than if such a field is lacking. In the case of weak longitudinal fields the discharge column curves in the 8. microsecond, on which occasion it remains sharply outlined. However, if a longitudinal field is lacking, the discharge column loses its sharp outline already in the fifth microsecond. The duration of the existence of a sharply outlined column increases under the effect of a longitudinal field to a greater extent than the compression velocity diminishes.

Next, the conditions for the development of the elementary theory for the compression of the discharge column under the effect of the own magnetic field in the case of the existence of a longitudinal magnetic field are given. At a field strength of 2000 Ørsted the computed curves agree satisfactorily with experimental data, but at 6000 and 12000 Ørsted the computed contraction is several times lower than the observed one. Therefore the strong longitudinal field is not frozen in and a considerable part of its flux emerges from the column during the contraction. The authors obtained a solution of the equation of motion which agrees well with measuring results. In the case of very weak magnetic fields the flux of the longitudinal field within the column increases.

INSTITUTION:

BEZBAICHENKO, A. L.

8962

AN INVESTIGATION OF A HIGH-CURRENT GAS DIS-

CHARGE IN A LONGITUDINAL MAGNETIC FIELD, A. L.

Serbatskiy, A. M., Golovig, B. P., Kozlov, S. I., Melnikov
and N. A. Yeliseyev. *Soviet Nuclear Energy* 5, No. 1, 1957.

A gas discharge in deuterium has been investigated at currents of up to 760 kA in a longitudinal magnetic field of up to 12,000 oersted. The influence of the field on the development of the discharge column was observed. Estimates are given of the plasma conductivity and the efficiency coefficient. (auth)

BEZDARKEVICH
BEZBATCHEIKO, A. L., GOLOVIN, I. N., KOZLOV, P. I., STRELKOV, V. S. and YAVLINSKIY, N. A.

"The Electrodeless Discharge with High Current in a Toroidal Chamber with a Longitudinal Magnetic Field." (Work carried out in 1956-57); pp. 116-133.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. IV. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

DELETED WORK, A-L.

Report presented to the US Intelligence Community in
 General, National, and International Security.

a. G. A. Interference, A. H. Interference, V. F. Interference and V. I. Interference.

"Investigation of a Pulse Discharge in a Hollow Cathode Oscillator"

b. D. G. Interference, A. H. Interference, V.

"Research on the Effects of the Interference of a Hollow Cathode Oscillator"

c. A. H. Interference, A. H. Interference, or G. H. Interference.

"On the Effects of the Interference of the Hollow Cathode Oscillator"

d. V. F. Interference, A. H. Interference.

"On the Effects of the Interference of the Hollow Cathode Oscillator"

e. G. H. Interference, A. H. Interference, A. V. Interference, G. G. Interference, G. L. Interference.

"An Investigation of the Interference of the Hollow Cathode Oscillator"

f. V. F. Interference, A. V. Interference, V. H. Interference, G. H. Interference.

"Typical Current Curve"

g. H. H. Interference.

"A Systematically Studied State of a Hollow Cathode Oscillator"

h. H. H. Interference, A. H. Interference, V. I. Interference.

"Interference of a Hollow Cathode Oscillator by an External Field"

i. H. H. Interference, G. H. Interference.

"Investigation of a Hollow Cathode Oscillator by an External Field"

j. H. H. Interference, A. H. Interference.

"On the Effects of the Interference of the Hollow Cathode Oscillator"

k. A. L. Interference, V. F. Interference, G. H. Interference, H. H. Interference.

"Investigation of an Interference of a Hollow Cathode Oscillator"

l. H. H. Interference.

"On the Effects of the Interference of a Hollow Cathode Oscillator"

"On the Effects of the Interference of a Hollow Cathode Oscillator"

"On the Effects of the Interference of a Hollow Cathode Oscillator"

L 11130-63

EWI(1),EWI(k)/EWI(m) EDS/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/SSD
Pz-4/Pab-4/Pi-4/Po-4 AT/IJP(C)

ACCESSION NR: AP3001173

S/0089/63/014/005/0446/0452

AUTHOR: Bezbatchenko, A. L.; Kuznetsov, V. V.; Malakhov, N. P.; Semashko, N. N.

TITLE: Injections of ion beam into the magnetic trap "Ogra" 19

SOURCE: Atomnaya energiya, v. 14, no. 5, 1963, 446-452

81

TOPIC TAGS: ion injection, plasma, magnetic trap

ABSTRACT: The paper describes experimental results on obtaining, focusing, and injection of a beam of molecular hydrogen ions of energy up to 180 kev into the magnetic field of the "Ogra." The ion current introduced into the trap was about 150 ma. The ions are introduced into the trap through a magnetic channel which consists of an iron screen with a compensating current winding for weakening the field inside the channel (see Enclosure). The distortion of the magnetic field of the trap caused by the iron injection channel is in the working part only a few percent. Details of the ion source, ion injector optics, and of the magnetic channel are given. Orig. art. has: 7 figures.

ASSOCIATION: none

Card 1/1,

DEZ. CHOD'KO, P.M.

"Changes in Certain Functions of the Liver in Ulcer Patients Following Selective Therapy." Cand Med Sci, Dnepropetrovsk State Medical Inst, Dnepropetrovsk, 1955. (ML, No 15, Apr 55)

SC: Sum.No. 704, 2 Nov 55 - Survey of Scientific and Technical Disertations Defended at USSR Higher Educational Institutions (16).

Bezborod'ko, B. N.

Changes in some liver functions of gastric ulcer cases undergoing sleep treatment. B. N. Bezborod'ko (Med. Inst., Dnepropetrovsk). *Klin. Med.* 33, No. 9, 91 (1955).—MD
Of 50 gastric ulcer cases, 20 had low cholesterol, 38 low protein, 31 lowered antitoxic function, and 6 high cholesterol. Following sleep treatment the levels returned to normal in the majority of cases. This was not necessarily accompanied by improvement of the gastric ulcer condition.

A. S. Mirkin

BEZBOROD'KO, B.N., kand.med.nauk

"Acute abdomen" in Henoch's purpura. Vrach.delo no.7:735-737 J1'58
(MIRA 11:9)

1. Kafedra gospital'noy terapii (zav. dots. E.V. Khait)
Dnepropetrovskogo meditsinskogo instituta.
(PURPURA (PATHOLOGY))

BEZBOROD'KO, B.N., kand.med.nauk

Rapid course of primary cancer of the liver. Vrach.delo no.10:1039-
1041 0 '59. (MIRA 13:2)

1. Kafedra gospiatal'noy terapii No.2 (zaveduyushchiy - dotsent E.V.
Khait) Dnepropetrovskogo meditsinskogo instituta.
(LIVER--CANCER)

DZYAK, V.N., dotsent; BEZBOROD'KO, B.N., dotsent

~~SECRET~~
So-called ambulatory forms of rheumatic fever in adults. Vrach.delo
no.11:28-31 N '60. (MIRA 13:11)

1. Kafedra gospital'noy terapii II (zav. - dotsent V.N.Dzyak)
Dnepropetrovskogo meditsinskogo instituta.
(RHEUMATIC FEVER)

BEZBOROD'KO, B.N., dotsent

Treatment of hypertension with izoverin. Vrach. delo no. 1:18-22
'61. (MIRA 14:4)

1. Kafedra gosspital'noy terapii II (zav. - dotsent V.N. Dzyak)
Dnepropetrovskogo meditsinskogo instituta.
(HYPERTENSION) (PENTANEDIAMINE)

BEZBOROD'KO, B.N.

Effect of euphyllin on the coronary flow; experimental study.
Farm.i toks. 24 no.1:70-74 Ja-F '61. (MIRA 14:5)

1. Kafedra farmakologii (zav. - prof. G.Ye.Batrak) i kafedra
gospital'noy terapii No.2 (zav. - dotsent V.N.Dzyak) Dnepropetrov-
skogo meditsinskogo inatituta.
(AMINOPHYLLINE) (CORONARY VESSELS)

BEZBOROD'KO, B.N., dotsent

Diagnostic importance of the albumin method of determining a
titer (antistreptolysin-O in rheumatic fever. Vop. revm. 3
no.3:67-71 J1-S'63 (MIRA 17:3)

1. Iz 2-y kafedry gosital'noy terapii (zav. -- prof. V.N.
Dzyak) Dnepropetrovskogo meditsinskogo instituta.

DZYAK, B.N.; FURS, I.T.; BEZBOROD'KO, B.N.

Comparative evaluation of the effect of some preparations from the group of organic nitrates on the cardiovascular system under experimental conditions. Farm. i toks. 26 no.1:47-52 Ja-F '63.
(MIRA 17:7)

1. Kafedra gospiatal'noy terapii No.2 (zav. ... prof. V.N. Dzyak)
Dnepropetrovskogo meditsinskogo instituta.

Card 5/5

BEZBORODKO, G.I.

Quantitative determination of double bonds in unsaturated compounds
by the hydrogenation method. Plast.massy no.1:59-62 '61.

(Unsaturated compounds)

(MIRA 14:2)

20488

5-3700

S/191/61/000/003/012/015
B124/B203

AUTHOR: Bezborodko, G. L.

TITLE: Comparison of procedures for the synthesis of 4-chloro
acetophenone with the Friedel-Crafts method

PERIODICAL: *Plasticheskiye massy*, no. 3, 1961, 64-66

TEXT: Aliphatic aromatic ketones can be obtained, according to Friedel-Crafts, in the presence of aluminum chloride as a catalyst either by condensation of aromatic hydrocarbons (or their alkyl and halogen derivatives) with chlorides of unsaturated monocarboxylic acids, or by condensation of the same hydrocarbons with anhydrides of these acids. In the former case, acylation proceeds according to the equation:
$$RCOCl + R'H \longrightarrow RCOR' + HCl$$

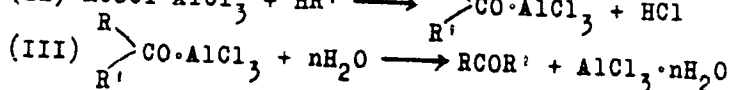
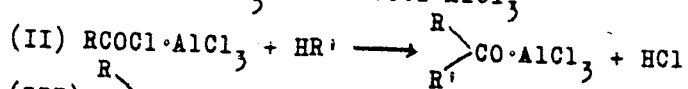
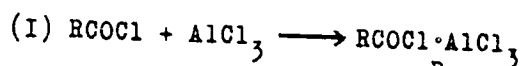
According to J. Boeseken, the reaction proceeds in three stages, namely:

Card 1/5

20488

Comparison of procedures...

S/191/61/000/003/012/015
B124/B203



In the synthesis concerned, R is CH_3 , and R' is $\text{C}_6\text{H}_4\text{Cl}$. At the NIIPP, a procedure was developed for obtaining the ketone by arylation of chlorobenzene with acetyl chloride without a solvent, and tested at the pilot plant. The synthesis of 4-chloro acetophenone with the use of acetic anhydride as acylation agent was also tested. A. Andrianovskiy (Ref. 13: ZhRFXhO, 11, 116 (1879)) observed, that aluminum chloride transformed acetic anhydride into acetyl chloride. P. H. Groggins and R. H. Nagel (Ref. 14: Ind.Eng.Chem., 26, 131421316 (1934)) used acetic anhydride and two or more moles of AlCl_3 for acylating various hydrocarbons, thus increasing the ketone yield. In the present paper, the author determines the most favorable conditions of producing 4-chloro acetophenone (intermediate in the synthesis of monochloro styrene) in the acylation of chloro-

Card 2/5

20488

Comparison of procedures...

S/191/61/000/003/012/015
B124/B203

benzene by means of acetic anhydride, compares this method with the one developed earlier, and works out an efficient procedure for the industrial purposes. He studied the effect of the component ratio on the synthetic ketone yield, the effect of the order in which the admixtures are added, temperature, and reaction time. The reaction with acetic anhydride and that with acetyl chloride were conducted without a solvent. At a ratio chlorobenzene : acetic anhydride = 2:1, the most favorable quantity of $AlCl_3$ was 3.1 - 3.3 moles. At an increase of the acetic anhydride content from 1 to 1.1 moles, positive results were obtained (see table, experiments 10 and 11). Thus, the optimum ratio chlorobenzene : aluminum chloride : acetic anhydride is 2:3.3:1.1, the ketone yield reaching 87-88% with good reproducibility. The best suited reaction time is 6 hr; the use of acetic anhydride is more convenient than that of acetyl chloride. A. A. Meyerzon, T. I. Yudina, and I. Z. Taurit assisted in the experiments. There are 1 table and 18 references: 4 Soviet-bloc and 14 non-Soviet-bloc.

Card 3/5

20488

Comparison of procedures...

S/191/61/000/003/012/015
B124/B203

① № опыта	② Загрузка, г			③ Темпера- тура, °C	④ Продол- житель- ность реакции часы	⑤ Полу- чено сырца г	⑥ Состав Кетона-сырца %			⑦ Получено, г		⑧ Выход кетона, %		⑨ Примечание
	AlCl ₃	C ₆ H ₅ Cl	④ Уксусный ангидрид				а хлор- бензол	б кетон	в остаток	100%-ного кетона	2 возвратного хлор- бензола	1 к взятому хлор- бензолу	3 к прореаги- ровавшему хлор- бензолу	
1	128	72	32,6	100	10	88	7,89	82,89	2,6	63	6	73,6	80,3	⑩ Уксусный ангидрид без пере- счета на 100 % ⑪ Опыт с хлор- ным аце- тилом
2	133,5	75	37,3	100	10	97	—	76,2	3,2	71	6	71,7	75,0	
3	133,5	75	37,3	99	6	98,5	5,92	88,1	1,31	67	4,5	80,3	85,5	
4	124,5	75	37,3	100	10,05	98	2,68	75,2	2,15	70	2,5	71,54	74,0	
5	124,5	75	37,3	100	6	105	8,7	68,1	2,1	62	8	62,8	70,3	
6	146,5	75	37,3	100	10	97	3,37	89,1	4,05	83,5	6,5	83,9	85,8	
7	146,5	75	37,3	97—98	8	97,5	—	85,5	3,1	82	6	81,0	86,0	
8	146,5	75	37,3	100	6	100	3,5	91,7	1,1	85,5	3	83,6	86,7	
9	133,5	75	37,3	100	6	108	13,5	79,6	—	85,5	8	82,6	93,4	
10	133,5	75	41,1	104	6	102	7,85	72,55	3,92	75,0	6,8	76,0	79,5	
11	146,5	75	41,1	104	6	100	2,0	90,0	3,0	90	2	87,5	90,0	
12	112	75	52,5	80	4	96	—	87,5	6,25	84	2 Следы	82,5	82,5	

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Comparison of procedures...

S/191/61/000/003/012/015
B124/B203

Legend to the table: Results of chlorobenzene acylation by means of acetic anhydride. (1) No. of experiment, (2) charge, g, (a) acetic anhydride, (3) temperature, °C, (4) reaction time, hr, (5) raw product obtained, g, (6) composition of the raw ketone, %, (b) chlorobenzene, (c) ketone, (d) residue, (7) obtained, g, (e) 100% ketone, (f) recycled chlorobenzene, (8) ketone yield, (g) per chlorobenzene weighed in, (h) per chlorobenzene reacted, (9) note, (10) acetic anhydride, not calculated to a 100% purity, (11) experiment with acetyl chloride, (12) traces.

X

Card 5/5

BEZBORODKO, G.L.

Economical method of dehydrating isopropyl alcohol. Plast.massy
no.4:63-65 '61. (MIRA 14:4)
(Isopropyl alcohol) (Dehydration (Chemistry))

8/191/63/000/002/002/019
B101/B186

AUTHORS: Golubeva, A. V., Katstov, O. L. (Deceased), Neymark, O. M. (Deceased), Bezborodko, G. L., Kon, A. V., Usanova, N. F., Doynikova, S. N.

TITLE: Synthesis and polymerization of styrene derivatives. Synthesis of chloro derivatives of styrene

PERIODICAL: Plasticheskiye massy, no. 2, 1963, 3-6

TEXT: To produce polymers with higher heat resistance than styrene the synthesis of 2,5-dichloro styrene and monochloro styrene was studied, these being intended for use as monomers in the production of new polymers. The initial substance for the synthesis of 2,5-dichloro styrene was p-dichloro benzene ethylated by ethylene or by ethyl chloride, in the presence of $AlCl_3$ to make ethyl-p-dichloro benzene. The synthesis of 2,5-dichloro styrene was attempted in several ways: (1) Chlorination of ethyl-p-dichloro benzene to α -chloro-ethyl-p-dichloro benzene, saponification with Na_2CO_3 to p-dichloro-phenyl methyl carbinol, and dehydration with Al_2O_3 to

Card 1/3

Synthesis and polymerization ...

S/191/63/000/002/002/019
B101/B186

2,5-dichloro styrene. This method has the disadvantages that α -chloro-ethyl-p-dichloro benzene decomposes on rectification, that two carbinol modifications are obtained, and that the yield is only 25-27%. (2) Dehydrochlorination of α -chloro-ethyl-p-dichloro benzene with BaSO_4 or CaSO_4 at 350-400°C yielded 65-80% 2,5-dichloro styrene, but the activity of the catalyst decreased rapidly so that frequent regeneration in O_2 at 500°C was necessary. (3) Dehydrogenation of ethyl-p-dichloro benzene with styrene contact catalysts at 600-620°C, 10-12 mm Hg, gave a 39% yield, but at these temperatures HCl was formed as the result of pyrolysis. (4) Acylation of p-dichloro benzene with acetyl chloride, acetic anhydride, or acetic acid according to Friedel-Crafts to p-dichloro acetophenone, reduction of the phenone with aluminum isopropylate to p-dichloro-phenyl methyl carbinol, and dehydration with Al_2O_3 gave a 55-60% yield of 2,5-dichloro styrene. ✓

The dehydration was studied at various temperatures in CO_2 and N_2 atmospheres. The reaction products were stable up to 450°C and HCl formed only at higher temperatures. To synthesize monochloro styrene, chloro benzene was acetylated with acetyl chloride or acetic anhydride without a solvent.

Card 2/3

Synthesis and polymerisation ...

5/191/63/000/002/002/019
B101/B186

to p-chloro acetophenone, then reduced with aluminum isopropylate in isopropanol to p-chloro-phenyl methyl carbinol, and dehydrated with molten KHSO_4 or with Al_2O_3 to p-chloro styrene. The quantitative reduction of the ketone succeeded with 50-60% aluminum isopropylate. There are 2 figures.

Car 3/3.

S/191/63/000/004/001/015
B101/B186

AUTHORS: Golubeva, A. V., Katstov, C. L. (Deceased), Bezborodko, G. I.,
Kon, A. V., Usmanova, N. F., Doynikova, S. N.

TITLE: Synthesis and polymerization of styrene derivatives. Polymers
of p-chlorostyrene and 2,5-dichlorostyrene

PERIODICAL: Plasticheskiy massy, no. 4, 1963, 4 - 6

TEXT: Mass polymers were produced from styrene, p-chlorostyrene, and 2,5-dichlorostyrene under equal conditions. Their physico-mechanical and dielectric properties were compared. Results:

	Poly-p-chloro- styrene	Poly-2,5-di- chlorostyrene	Polystyrene
average-number - molecular weight	340.000	810.000	400.000
impact strength, kg/cm ²	14	6-9	18-20
bending strength, kg/cm ²	900	600	1100
Vicat heat resistance, °C	140-142	150	110
tanδ at 10 ⁶ cps	0.0004-0.0005	0.0002-0.0003	0.0002
breaking voltage kv/mm	25	28	20-22

Card 1/2

Synthesis and polymerization of...

S/191/63/000/004/001/015
B101/B186

Poly-2,5-dichlorostyrene was stable to a 7-day action of 96% H_2SO_4 , 34% HCl , 65% HNO_3 , 99% CH_3COOH at room temperature, whereas poly-p-chlorostyrene cracked at these concentrations. Both chlorine derivatives were stable to 60% H_3PO_4 , 85% HCOOH , 50% NaOH , oil, glycerol, and gasoline under the above conditions. Optimum conditions for molding, compression molding, and extruding polymers were studied. Poly-2,5-dichlorostyrene was molded at 180 - 190°C, 250 - 300 kg/cm², or at 260 - 265°C, 1200 - 1500 kg/cm². For poly-p-chlorostyrene, the temperature could be decreased to 175 - 180°C, and 250 - 260°C, respectively. Heat treatment of the pressed samples when kept in a thermostat at 90 - 100°C for several hours, is essential to eliminate cracks. Higher heat resistance makes chlorostyrene derivatives superior to styrene. Their mechanical strength, however, is lower than that of styrene. The only disadvantage of poly-2,5-dichlorostyrene is that HCl is liberated above 250°C. There are 4 figures and 2 tables.

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L 13366-63 EPF(c)/EWP(j)/BDS/EWT(m)/ES(s)-2 AFFTC/ASD/ESD-3/
SSD Pr-4/Pc-4/Pt-4 RM/WW

ACCESSION NR: AP3003300

S/0191/63/000/ 007/0008/0009

AUTHORS: Golubeva, A. V.; Tolstikova, Z. D.; Sivograkova, K. A.;
Bezborodko, G. L.

79

76

TITLE: The synthesis and polymerization of styrole derivatives. Synthesis and polymerization of methylstyrole derivatives

SOURCE: Plasticheskiye massy*, no. 7, 1963, 8-9

TOPIC TAGS: methylstyrole, dimethylstyrole, synthesis, polymerization, bromo-toluene, magnesium, methylphenol, paraxylene

ABSTRACT: o-methylstyrole and 2,5-dimethylstyrole were synthesized and studied in detail. o-methylstyrole was synthesized from o-bromotoluene using organic magnesium compound and a subsequent oxidation with ethylene oxide, followed by hydrolysis of the obtained o-methylphenol alcohol over KOH. 2,5-dimethylstyrole was synthesized from paraxylene by the method of 2,5-dimethylacetophenon. The polymers of o-methylstyrole and 2,5-dimethylstyrole were obtained by block and emulsion methods. Their physico-mechanical and dielectric properties were studied. It was determined that o-methylstyrole and 2,5-dimethylstyrole polymers possess

Cord 1/2